



Based at INFOFISH, Kuala Lumpur, and set up with the assistance of FAO, the Advisory Service for Fishing Technology for the Asia/Pacific strives to facilitate dissemination of information on fishing technology and equipment for the industry and research/training institutions as well as to promote links between research institutions, administration and industry. Since 1992, INFOFISH has issued a quarterly newsletter collating global fisheries news and new items relating to fishing technology and fish harvesting.

Information on fishing technology and equipment also appears in *INFOFISH International*, a bi-monthly magazine of which the forthcoming issue will include an article on a "*Venezuela: a new institutional and legal framework for fisheries and aquaculture*". A supplementary section on "Industry Notes" provides information on latest developments in the global fisheries scene. New equipment and innovations are also featured. Comments and contributions are welcome, so are requests/recommendations for inclusion in the mailing list.

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Fish production trend of Southeast Asia (SEA) and China by 5 year average (mt)

	1981-1985	1986-1990	1991-1995	1996-2000	2001-2005	2006
SEA Total	8,568,544	10,557,224	13,198,772	15,543,652	20,042,475	23,948,854
Inland Capture	982,141	983,393	1,048,013	1,172,835	1,548,503	1,889,803
Marine Capture	6,542,085	8,065,140	9,793,830	11,212,775	12,904,211	13,762,586
Aquaculture	1,044,318	1,508,691	2,356,929	3,158,042	5,590,761	8,296,465
China Total	7,129,908	12,559,052	24,148,501	43,617,421	55,881,144	62,712,523
Inland Capture	441,756	731,163	1,222,910	2,089,733	2,367,668	2,549,199
Marine Capture	3,252,190	5,062,912	8,593,286	14,367,860	14,698,594	14,866,757
Aquaculture	3,435,962	6,764,977	14,332,305	27,159,828	38,814,882	45,296,567
World's Total	83,604,545	102,089,234	113,731,499	133,739,382	150,187,506	159,897,138
Inland Capture	5,502,299	6,160,741	6,610,436	8,108,997	9,028,666	10,069,279
Marine Capture	68,769,172	80,837,610	82,542,454	86,153,783	85,374,730	83,081,146
Aquaculture	9,333,074	15,090,883	24,578,609	39,476,602	55,784,110	66,746,713

Source: FAO fishstat plus 2008

Editor's Note

All these years, the Fishing Technology Digest has come to you on a complimentary basis. Rising production costs have, however, compelled us to switch to a new format and adopt alternative printing arrangements. We hope you will understand our predicament and bear with us. Despite the constraints, there will be no sacrifice on quality and content. Needless to say, in the present scenario we would welcome any assistance from companies or organisations through full or partial sponsorship of the Digest to ensure its uninterrupted production.

FISHERIES

1 Sri Lankan Fisheries Minister warn fishermen against entering Indian waters

Sri Lanka Fisheries Minister Felix Perera asked the fishermen to avoid from entering Indian territorial waters in the next 45 days as the Tamil Nadu officials have declared a fishing ban in their seas.

According to the Minister Tamil Nadu officials have declared this fishing ban in their seas for the next 45 days as it is considered the breeding season for the fishes. The Minister said he would not be able to intervene to secure the release if the Indian Coast Guard arrested Sri Lankan fishermen during this period.

Fisheries Minister said that the Tamil Nadu officials have already informed him over this issue and issued a hard warning to the fishermen. He asked the Sri Lankan fishermen not to enter their waters in these 45 days as it would create an unnecessary row between the two countries.

ICSF 17 April, 2009

2 UN boost for fisheries sector in Sri Lanka

The United Nations Office for Project Services (UNOPS) has signed a Memorandum of Understanding (MoU) with the Fisheries and Aquatic Resources Ministry of Sri Lanka to develop coastal resources management, construct three anchorages and 18 fisheries harbours in tsunami-affected areas.

Under this MoU easy loan facilities from the International Agricultural Fund would be made available for the entire project and priority would be given to post-tsunami coastal rehabilitation, resource management and post-tsunami livelihood programmes, the Fisheries and Aquatic Resources Ministry said.

Fisheries and Aquatic Resources Minister, Felix Perera told The Island Financial Review that post-tsunami development activities encompassing Kalutara, Galle, Matara, Hambantota, Trincomalee, Ampara and Batticaloa districts would commence shortly and according to financial estimates, around US \$ 40,347,400 would be allocated from the Consolidated Fund.

He pointed out that the total expenditure contributed from the Sri Lankan government would be US \$ 4,373,600 and Rs. 1400 million would be allocated to construct fisheries harbours, Rs. 1050 million to construct anchorages and Rs. 20 million for the construction of 14 ferries. In addition around Rs. 120 million would be spent to construct B grade fisheries harbours.

Minister Perera added that under the MoU for the construction of three anchorages and 18 fisheries harbours, Rs 1400 million would be spent and Rs 350 million would be allocated to construct one anchorage. The Fisheries Ministry in its comprehensive survey has finalized the construction of ferries in Vakara, Saindamarudu and Suduwella Matara. A grade fisheries harbours would also be reconstructed and each would cost Rs. 20 million. These would be in Matur. Kinya, Salpayaru, Pachakuada, Kaluwankeri, Kapkaratota, Kirillewela, Kaikawala and Galbokka areas. B grade fisheries harbours in Palaminmudu, Payagala, North Kalutara, Moderawattha

and Samarapuwattha would also be reconstructed. Rs. 12 million has been allocated to reconstruct one B grade fishery harbour.

ICSF 17 April, 2009

3 World Ocean Conference will try saving lives of coastal people

The ongoing World Ocean Conference (WOC) in Manado, North Sulawesi, Indonesia, will formulate efforts to save not only the sea and marine resources but also the lives of people living in coastal areas.

"The adaptation and mitigation framework that the meeting will formulate is aimed at safeguarding not only the seas and the resources they hold but also the lives of people living in coastal areas," Indonesian Minister for Maritime and Fisheries Affairs, Freddy Number said when opening a WOC senior officials' meeting in Manado on Monday.

People living in coastal areas of small islands in developing countries are groups of settlers whose lives are seriously threatened by the impact of climate change such as the rising sea surface. "The rise in the sea surface will submerge some of the outlying islands, while climate change will also affect the conditions of sea water and the marine biota population," the Minister said.

In this case archipelagic countries and nations with vast coastal areas should cooperate in increasing the people's understanding of the relations between the climate change and the sea and their impact on the ecosystem, bio-diversity and coastal community living in small developing countries.

The need to safeguard the people in coastal areas from the impact of climate change was also expressed by Moses Murihungurire, Director for Resources Management of the Namibian Ministry of Maritime and Fisheries, and Gabriella Bianchi, Senior Officer of the Food and Agriculture Organization (FAO).

Both shared the opinion that the dynamic change of ecosystem as a result of climate change affected people in coastal areas whose life and protein need depended on the sea resources.

Excessive exploitation of sea resources by human beings also caused the ecosystem to undergo changes. "For this purpose, ecosystem-based fishery management needed to be applied," Bianchi said.

The ecosystem-based management is basically an integrated fishery management applied by taking into account the sustainability of the ecosystem. With a fishery management model that takes into account the seas' ecosystem balance, the people, particularly those living in coastal areas, would be able to utilize sea resources without harming their sustainability.

In order to adopt a comprehensive formula, the participation of the people living in the coastal areas is needed. Chairman of the WOC Senior Officials' Meeting (SOM) chairman Eddy Pratomo said meanwhile that a formulation would be sought to involve farmers and people living in coastal areas in future forums like WOC. "We have yet to involve them, but the time will come when we seek a formulation to involve

farmers and people in coastal areas in future forums like WOC," Pratomy said at a press conference at the Grand Kawanua Convention Center.

He said the first WOC this time was specialized for government representatives to obtain political support from WOC participating countries. "We have a common understanding that people at coastal areas are affected by climate change at sea," Pratomy said.

According to Achim Steiner, Executive Director of the UN Environment Programme (UNEP), the world's oceans and seas are now understood to be the biggest sink of greenhouse gases from the burning of fossil fuels.

Indeed experts now estimate that up to 40 per cent of the carbon dioxide entering the atmosphere is being cycled through the marine environment, playing a crucial role in moderating climate change. But experts are warning that the marine realm cannot continue to soak up man-made pollution forever without consequences. Many marine living creatures from corals and crabs to plankton at the base of the food chain need seawater that is alkali to build their skeletons.

The average pH of water at the ocean's surface has now fallen from 8.16 to 8.05 since the beginning of the Industrial Revolution - small falls, but with potentially huge impacts if this continues.

Steiner said the governments must affirm their determination to 'Seal the Deal' in Copenhagen at the UN climate convention meeting in order to begin steering the world onto a low carbon course.

"We have to improve the health of our oceans. They have to be as fit and resilient as possible, so that they can cope with the climate change burden— so they can continue to provide us with food and the myriad of other economically-important services," he told. This means governments have to urgently address the multiple challenges weakening our seas, from land-based pollution and discharges from ships to overexploitation of the globe's seas.

ICSF 12 May 2009

4 UN indigenous forum calls for consultations on patents

A United Nations conference on indigenous affairs wrapped up its two-week gathering today, making a host of recommendations, including the worldwide establishment of a mechanism requiring patent offices to publicize the origins of products derived from indigenous knowledge when exclusive rights to the design are requested.

The Eighth Session of the UN Permanent Forum on Indigenous Issues also called on States and corporations to involve indigenous people in all negotiations relating to the entry of mining industries, infrastructure projects and other development schemes into their communities.

One of the texts approved by the Forum, a subsidiary of the UN Economic and Social Council (ECOSOC), called on the international community to ensure the application of culturally relevant, gender-balanced and gender-based analysis and gender budgeting as critical elements of economic and social development, consistent with the UN

Declaration on the Rights of Indigenous Peoples.

The Declaration, a landmark text adopted in 2007, outlines the rights of the world's estimated 370 million indigenous people and outlaws discrimination against them. It sets out rights to culture, identity, language, employment, health, education and other issues.

The 16-member Forum – which drew around 2,000 indigenous representatives from all regions of the world, as well as representatives of Member States, civil society, academia, some 35 UN entities and other intergovernmental organizations – approved a provisional agenda for next year, including a half-day discussion on North America.

ICSF 1 June, 2009

5 Largest fish on earth turns Philippines fishers into activists

When fish stocks decline, coral reefs die and sea levels rise due to ever-accelerating climate change, populations in coastal areas become the first human victims. But instead of becoming victims, fishermen in Donsol, some 600 kilometres south-east of the Philippines' capital Manila, have matured into active protectors of their environment.

Between December and May, more than a hundred fishermen in Donsol rarely take their boats to sea in order to haul in a catch. Instead, they earn a living by acquainting tourists with the largest fish on earth, whale sharks.

The bay of Donsol not only serves as the feeding grounds for the giant fish, but the recent find of a baby whale shark suggests that they also rear their young here. "We are here to observe (the whale sharks), not to disturb them," Alloy, 36, reminds the tourist group that has gathered on board his boat before they all jump into the water in full snorkeling gear.

Outside the shark-watching season, Alloy catches tuna, swordfish and sardines on this boat. Less than 10 metres from the boat, the group spots its first whale shark, as it approaches slowly and elegantly, almost like in slow-motion.

The group follow the colossus for a while, before it descends deeper and vanishes. The fisherman on the boat usually spots four, five, sometimes up to eight specimens during a regular three-hour tour, and the tourists are always fascinated by the chance to observe the animals close-up in their natural habitat.

Whale sharks can grow up to 20 metres long and weigh up to 34 tons, the environmental organization World Wildlife Fund for Nature (WWF) says. It was WWF staff that taught Donsol's fishermen how to interact with whale sharks and tourists to make possible such gentle inter-species encounters.

The fishermen and boat crews, the beachfront restaurants and small hotels are all concerned about the wellbeing of "their" whale sharks, or butanding, as they are called in the local dialect.

But things have changed, and today some of the whale sharks, easily to tell apart by the unique patterns on their backs, have even got nicknames from the locals. Guadamor has become one of the staunchest advocates of protecting the ocean waters that lap at his front door.

ICSF 12 May 2009

6 Ancient humans knew sustainable fishing, says new study

Early humans living off the coast of California in the United States may have been the first "farmers" of the sea. By managing sea otter populations they maximized their harvest of abalone and mussels, making them pioneers in the art of sustainable fishery management, according to a new study.

Jon Erlandson of the University of Oregon and team of researchers collected thousands of shells from ancient settlements of the Chumash people in the Channels Islands near Santa Barbara, Calif., dating back to around 12,000 years ago.

They found that while people were harvesting millions of shellfish annually from the local kelp forest ecosystem, shell sizes remained relatively stable even as the local population grew and became more technologically advanced.

The trend suggests Channel Island settlers may have been the first to work out a sustainable form of fishing. When certain areas became depleted, they simply moved to another, effectively imposing a "no-take zone" in the old fishing grounds. And when harvests dwindled throughout the region, they switched to hunting and eating otters until shellfish numbers recovered.

In previous studies, researchers have documented human impacts on shellfish populations in the Mediterranean Sea as long as 25,000 years ago. And evidence from South Africa suggests humans were hunting the seas up to 120,000 years ago.

"For most of the 20th century, we thought any intensive use of marine resources was limited to the last 10,000 years, the same time as the agricultural revolution," Jon Erlandson of the University of Oregon said. "But you have to understand that humans have been messing with Mother Nature for a long time."

Erlandson presented his findings last week at the Oceans Past conference in Vancouver, British Columbia.

Daniel Pauly of the University of British Columbia argues the shells are signs of opportunism, not management. "Management implies you do something intentionally, you have a plan, a goal," he said. "I think these people had a strategy to exploit resources, and when it had a bad result, they switched from shellfish to otters."

Still, Pauly said the work could teach us a valuable lesson about managing modern day fisheries. About one-third of the global fish catch goes to feeding farmed animals like pigs, chickens, salmon and tuna. And it takes about four kilograms (8.8 pounds) of smaller fish like sardines or anchovies, to produce one kilogram (2.2 pounds) of tuna or pork. Just by eating those smaller fish, Pauly said we might greatly reduce pressure on global fisheries.

ICSF 3 June, 2009

7 Six countries sign Coral Triangle Initiative Leaders' Declaration on Coral Reefs, Fisheries and Food Security

The leaders of the Coral Triangle Six Countries signed The Coral Triangle Initiative Leaders' Declaration on Coral Reefs, Fisheries and Food Security in Manado, concluding a five-day World Ocean Conference (WOC) and Coral Triangle Initiative (CTI) Summit from

the 11 to 15 May 2009.

The aim of the leaders of Indonesia, the Philippines, Timor Leste, Papua New Guinea, Solomon Islands and Malaysia is to ensure a brighter future for the peoples of the Coral Triangle that is a moral obligation to care for the greatest wealth of marine life on the planet, to nurture these animals, plants and ecosystems.

A bold commitment to be proud of in the ongoing cooperation among the six countries as guardians of the coral reefs that make up such a unique resource and heritage, to balance our immediate needs with the needs and rights of future generations.

WOC is a forum for the world community to discuss current issues in the marine field which are related to climate change and how the world can wisely utilise the ocean to weather crisis. The WOC has also organized, parallel with the symposium, a global ocean policy day, an exhibition and the back-to-back Coral Triangle Initiative Summit; a dedicated agenda towards the preservation of the world's most pristine and valuable breeding and spawning grounds for almost all the living creatures in the ocean in Manado, North Sulawesi.

ICSF 18 May 2009

8 Indonesia's fishery exports to EU need certification by January

The European Union requires all fishery imports from Indonesia to be certified from January 2010 as part of its sustainable fisheries policy, to curb illegal, unreported and unregulated fishing.

The Directorate General for Distribution of Fishery Products said that the certification applies to all fishery products except fish from fresh water farming, aquariums, shellfish, seaweed, scallops, oysters and some other specific items.

"The new regulation *concerning the EU certification requirements*correlates with the EU's reputation as the best in implementing a high quality of fish in relation to sustainable fisheries," said spokesperson for the director general, Soen'an H. Poernomo. He was confirming that there would be a new regulatory framework to ensure certification standards could be met.

Soen'an said the new certificate must be filled in by local exporters who already had an "approval number" and details should be filed with competent local authorities to complete the validation process. "This would mean that all exported fishery products are produced from fishing activities that comply with all existing best practices in fishery management and conservation," he said.

The certification would also take account of variables such as the period needed for shipment from Indonesia to Europe and how long the fishery products stayed in cold storage during shipment, Soen'an said.

The standards for certification, however, will be less demanding for small-scale fishery businesses. "The European Commission has accepted the simplification of the certification for small-scale fishery businesses as proposed by a team from the EU Directorate General for Maritime and Fisheries," Soen'an said.

The European Commission's definition of small-scale fisheries are based on the following :- fishing with a boat no longer than 12 meters

and without using towing gear, or fishing with a boat up to eight meters in length but is equipped with towing gear with a capacity of less than 20 gross tons.

"Hence all small-scale fishermen do not have to fill in the certification form. This simplification will be translated into the implementing rules to be issued by the European Commission in July," he said.

Any violation of certification requirements would result in a notification from the European Commission to local authorities. Should no further steps be taken by the local authorities, the Commission would list the related exporter in the EC -IUU Vessel List (of illegal, unreported and unregulated suppliers). All shipments from companies so listed would be automatically rejected from entering the 27-nation EU.

Any exporting countries that disregarded the notification would be listed in the "non-cooperating countries" category, which would result in a trading ban of all fishery products from that country. "It could also result in the termination of fishery products trade cooperation between the EU and the country," he said.

The Ministry of Marine Affairs and Fisheries targets 9 per cent growth in the value of fish products to be exported this year, amounting to US\$2.8 billion. This target is slower than the growth from 2007 to 2008.

The US, EU and Japan are still the biggest importers of Indonesian fishery products, taking between them a total of 65 to 70 percent of all Indonesian exports, followed by East Asia (Taiwan, Korea, China, Thailand, Singapore, Malaysia) contributing a total of about 24 per cent.

Indonesia's main fisheries products are shrimps and tuna fish. Last year, shrimp exports contributed \$1.2 billion or almost 50 per cent out of the value of total fisheries exports, which reached \$2.56 billion.

ICSF 8 June, 2009

9 On World Oceans Day, FAO releases technical guidelines on deep-sea fishing

On the first-ever United Nations World Oceans Day the Food and Agriculture Organization of the UN (FAO) has published a set of technical guidelines aimed at helping the fisheries sector reduce its impacts on fragile deep-sea fish species and ecosystems.

The guidelines provide a framework that countries can use, individually and in the context of regional fisheries management organizations, to manage deep sea fisheries (DSF) in high-seas areas outside of national jurisdictions.

Many deepwater fish species grow slowly, reach sexual maturity late, and may not always reproduce every year. As a result they have low resilience to intensive fishing, and recovery from overfishing can take generations.

Stating that all fishing activity in deep sea areas should be "rigorously managed," the guidelines prescribe steps for identifying and protecting vulnerable ocean ecosystems and provide guidance on the sustainable use of marine living resources in deep-sea areas. They also outline ways that information on the location and status of vulnerable marine ecosystems, including vulnerable deep-sea fish stocks, should be improved.

Fishing nations should assess the deep-sea fishing being undertaken

by their fleets in order to determine if any significant adverse impacts are involved. Deep sea fishing activity should cease in any area where significant adverse impacts to vulnerable marine ecosystems are taking place and remedial steps have to be taken if these are likely to occur. And where it is determined that DSF can be undertaken responsibly, appropriate fishing methods should be used to reduce impacts such as impacts on non-target species.

Because deep sea fishing is a relatively new activity and requires considerable resources in terms of investment and technology, few countries have developed policies and plans specifically related to managing it.

"These guidelines provide much-needed guidance on the responsible way to approach deep sea fishing, and are a breakthrough in that they address both environmental and fisheries management concerns in an integrated manner," said Ichiro Nomura, Assistant Director General of FAO's Department of Fisheries and Aquaculture.

The guidelines published today were adopted by FAO members at a technical consultation held in Rome in September 2008.

ICSF 8 June, 2009

10 About 400 Malaysian fishing vessels seek EU certification

Owners of more than 400 fishing vessels in Malaysia have sought the European Union (EU) 'Hygiene On Board' (HOB) certification to enable them to sell their catches to EU member countries or approved processing plants and factories.

Fisheries Malaysia Department (Operations) deputy director-general Suhaili Lee said, as the certification was made mandatory by EU, more fishing vessel owners were expected to follow suit.

"In Malaysia, EU auditors who visited the country in March this year, have recognised the Health Ministry, Fisheries Department and Lembaga Kemajuan Ikan Malaysia as the competent authorities to certify. Only the three can certify on behalf of EU. Mind you, its auditors will come, from time to time, to ensure hygienic standards are maintained. We hope more applications can be submitted to us from now. We will start the certification process by January, next year," he said.

Suhaili was speaking to reporters after a meeting and briefing session with about 40 owners of fishing vessels and processing factories. He said, of the 400 applications received so far, about 100 were from Sabah, which is the biggest number, and 33 from Sarawak.

By 'HOB', he said the owners, workers and crewmen were, first and foremost, expected to observe all basic hygiene rules. "The vessels, for instance, must be big enough, have proper living quarters, toilets, bathrooms and places to sort out and process the catches which should be free from contamination," he added.

Suhaili said, the government, through Agro Bank, had set aside a special fund of RM300 million as soft loan for owners nationwide to make the necessary renovations to their vessels.

He said the EU was a very significant market, with its many member countries willing to pay high prices for the catches. Annually, Malaysia exports seafood like frozen shrimp and squid worth about RM600 million (US\$170 mn), to the EU.

ICSF June 26, 2009

RESEARCH

11 *Scientists build a macroscope of life on earth*

Imagine looking at a Google Maps-like satellite image of the Amazon forest and with a mouse click find out what lives in that bit of forest - what tree and plant species are there, what animals, birds and insects.

You could even look at the DNA of the microbes that live on those insects in this amazing, futuristic online "macroscope of life" on planet Earth.

The information about these Amazonian species, their habitats and even their DNA already exists in most cases. But it is scattered like dry leaves all over the world in dusty museum basements, science labs, libraries and hundreds of electronic databases.

This week, scientists are launching a 10-year global effort to gather and compile the world's vast storehouse of knowledge about biodiversity into a single online, interactive information system for life on Earth that will take its place alongside the world meteorology data network that pools information to predict the weather.

"A macroscope is between a microscope and a telescope. This will be a virtual macroscope observatory," explained David Schindel of the Consortium for the Barcode of Life (CBOL), at the Smithsonian Institution in Washington DC.

"It is only through a global, integrated system like this can we get answers to the great questions of our time," Schindel told IPS.

Among these "mega-questions" the macroscope, officially known as e-Biosphere, may answer is why are there so many different types of living organisms and how do we as a society co-exist with them and prevent the loss of ecosystems, he suggested.

It will also be an information tool for everyone with a question and online access. While all this may sound too futuristic to be a real possibility in a few years time, experts are working out the details at the first e-Biosphere 09 International Conference on Biodiversity Informatics in London this week. They will apply the latest in information technologies to build new software tools that make a global, free access biodiversity information network a reality.

Edwards estimates that there a billion information records about the Earth's living creatures. The Global Biodiversity Information Facility in Copenhagen already has 170 million and the rest is just waiting to be collected and put into digital form.

Much of the data will come from non-scientists - farmers, fishers, bird lovers and amateur naturalists - who have collected enormous amounts of data about when flowers bloom, or what butterflies and birds are present in their locales. Some of these go back hundreds of years.

At the consumer level, the macroscope could help identify which species of fish are mislabelled and sold in grocery stores and restaurants, or which processed wood products in the marketplace have been illegally harvested and imported.

EQUIPMENT & SUPPLIES

12 *Maritime VHF radio*

The GMDSS hand-held portable maritime VHF is a rugged VHF radio for emergency situations and regular use for onboard communications. It is easy to operate with one hand and while wearing gloves. Both the display and the keys of the VHF have backlight facility for easier operation in low light conditions.

The watertight VHF has 21 channels, including channel 16. The instrument complies with ETS 300 225 and IMO/SOLAS/GMDSS regulations and is MED and FCC approved.

(Jotron AS, Norway)

13 *New high frequency transducers*

Two new 333 KHz high frequency transducers for Simrad echo sounders, the ES333-7C and ES333-7CD, have been developed which will give fishery research scientists improved information on fish size and species with the goal of providing more accurate data on fish stocks to the industry.

The new frequency was introduced because different species and

sizes exhibit backscattering characteristics at different frequencies. By comparing data from this additional high frequency with information obtained from other Simrad transducer frequencies, scientists will benefit from a more complete image. The ES333-7C is made for mounting close to the sea surface on the vessel hull or on a drop keel, while the ES333-7CD can be installed at depths down to 1 500m.

(Simrad Kongsberg Maritime AS, Norway)

14 *New Fish Finder*

The new Koden CVS-126 is a 5.7" sunlight-viewable colour digital echo sounder with an exclusive Sona-Tone feature, which helps identify what is under the boat with an audible tone. The new digital signal processor eliminates clutter by filtering out noise to provide a clear, detailed image with enhances fish targets in shallow and deep waters, making it easier to see fish, shoals and the sea bed.

The instrument also features a "fishing hotspot" function when connected to an external GPS sensor, allowing the user to go back to his favourite fishing hot spots.

(Mantabrite Ltd, UK)

15 Eighth meeting of the General Assembly of INFOFESCA

The eighth Meeting of General Assembly of INFOFESCA took place in San Jose, Costa Rica, on 3 April 2009, at the Country Inn Hotel. Mrs Maria Gabriela Pineda, General Director of Fishery and Aquaculture (DIGEPESCA), Honduras was unanimously elected as President of the General Assembly will take place one day before the beginning of COFI in 2010.

The President of the Assembly also informed the delegates of the decision to open a regional office in Brazil. At the meeting Mr Alan Bojanic, Representative of FAO in Costa Rica, emphasized the relevant role of INFOFESCA in Latin America.

16 Marketing project for Aceh fish traders organised by INFOFISH

A group of twelve fish traders and boat owners from Aceh, Indonesia accompanied by three fisheries officers visited Malaysia from 19-25 February to explore business opportunities and establish direct business link with their Malaysian counterparts.

They visited fish landing sites, wholesale and retail fish markets as well as a 'barter trade' port in Port Klang, Kuala Lumpur. The visit, organised by INFOFISH, was one of the components under the activities of the FAO Fish Marketing Information Project for Aceh (GCP/INS/078/SPA), funded by the Spanish government.

The FAO Fish Marketing Information Project for Aceh was initiated to help the 2004 tsunami affected Aceh fish traders and fishermen/fish farmers gain better market access for their products in the regional markets, particularly in neighbouring Malaysia.

The main purpose of the Aceh fish traders visit to Malaysia was to explore opportunities for them to deal directly with Malaysian fish buyers, instead of through an intermediary as had been the case under the previous system.

A number of business meetings, field visits, and discussions were held with the Malaysian counterparts. The mission was considered a success with some business deals concluded and several possible joint ventures discussed.

PUBLICATIONS

17 Marine Functional Food

Edited by J B Lutten

Regular seafood consumption is associated with beneficial health effects. This book reviews the research on seafood and health, the use and quality aspects of marine lipids and seafood proteins as ingredients in functional foods and consumer acceptance of (marine) functional food. The first chapter covers novel merging areas where seafood may prevent disease and improve health such as in cognitive development, mental health, cancer, allergy and oxidative stress are highlighted.

Cases where nutrients in seafood may have health protective effects such as in proteins, peptides, amino acids, selenium, chitosan, glucosamine and chondroitin sulphate are also discussed. The next chapters cover quality aspects of marine lipids and seafood proteins as ingredients in functional foods. The methods used for processing marine lipids and proteins, are discussed as well as the different factors that can affect their quality in functional foods. The book then concentrates on factors related to consumers' attitudes, knowledge and awareness of functional foods.

Finally, the book discusses challenges for small and medium enterprises to commercialise healthy nutrition. Variations in characteristics capabilities, challenges and opportunities in the marketplace are presented using a Nordic study as reference.

Available from: Wageningen Academic Publishers, PO Box 220, NL 6700 AE Wageningen, The Netherlands.
Website: wageningen.academic.com

18 World Fisheries -what is to be done?

by Alexander L. Fridman

The book traces the history and philosophy of commercial fishing, and explores ideas on responsible, profitable and rational world fishery. It first recounts important parts of fishing's history which

helps explain how the fishing industry's present situation has developed and also provides a background to the changes that the 21st century may bring.

The book concludes with some ideas and proposals which could help ensure the long-term future of the world's fisheries and its fishermen.

Among them is the systematic development of a new structure for world fishing and institutional strengthening. The book combines history, philosophy and science with some of the author's personal experiences especially on the developments that took place within Russia's fishing industry before, during and after the cold war and the fisheries in many other countries.

Available from: Baird Publications, 135 Sturt Street, Southbank, Victoria 3006, Australia.
Fax: 61-3-96540475.

19 Technical Training Manual

Manual on Processing, Packaging and Presentation of Value-Added Tuna Products

The manual depicts basic guidelines on handling, production and presentation of eight tuna-based value-added products for prospective tuna processors and export processors in developing countries. The technology mentioned in the manual is simple and can be modified or upgraded with simple equipment. The manual also highlights modern approaches to quality assurance of tuna products.

For the convenience of the user, a section on buyers' specifications of the products in major markets and a list of equipment suppliers is also included. The manual also has colour photographs of the products and flow charts depicting the processing.

Available from : INFOFISH

20 USA: Marine reserves to prevent destruction of resources

Towards the end of his presidency, George W. Bush took a bold step in ocean conservation, by closing seven remote patches of the Pacific Ocean to fishing which, put together, would be larger than Spain. The marine monuments created by Bush now total 850,000 sq km, far more than ever created before. The move is welcomed by marine scientists, at a time when oceans are suffering from overfishing and the effects of climate change and acidification. By the new extension of 50 nautical miles (92 km) off 11 islands, it has created a new marine monument area of 505,000 sq km, where no fishing is allowed.

"The marine monuments are areas which will be protected from resource destruction or extraction, waste dumping and commercial fishing. They will only allow research, free passage, and recreation - including the possibility of recreational fishing one day in those areas. For seabirds and marine life, the areas will be sanctuaries to grow and thrive. For scientists, the marine reserves will be places for research to extend the frontiers of discovery," Bush told after making the decision.

Most of the islands and their reefs in the new marine reserves are already protected, and this will benefit the bigeye and yellowfin tuna stocks from declining, along with the birds, sharks, turtles and dolphins that are accidentally caught by tuna long-liners. The biologically rich but fragile seamounts, vulnerable to destruction from trawlers, will also be saved.

INFOFISH International 3/2009

21 Sri Lanka: Improves fishing efficiency

Sri Lanka has begun using satellite data for fish forecasting to improve the efficiency of the island's fishing industry.

National Aquatic Resources Research and Development Agency (NARA) officials said data from remote sensing satellites help better identify waters rich in fish, reducing fishermen's search time.

Fishermen mostly rely on traditional knowledge and experience of sea conditions to find their catch. Trawlers sometimes sail for days in search of fish, which is inefficient as their stay at sea is limited by fuel and food stocks, and also too expensive given high fuel costs.

NARA is also conducting awareness campaigns among fishing communities on post-harvest techniques to help them maintain the quality of their catch and reduce wastage.

New guidelines are being taught on proper storing techniques at sea, such as stacking fish as soon as they are caught so as not to bruise the fish, which reduces their marketability.

World Fishing April 2009

22 Indonesia: Australia, Indonesia undertake joint fishery patrol

Australia and Indonesia have successfully carried out a fourth

coordinated patrol targeting illegal fishing in the Arafura Sea.

Australia's Ambassador to Indonesia, Bill Farmer, said the seven-day operation from 24 to 30 May 2009 demonstrated a cooperative approach to safeguarding the Australian-Indonesian Exclusive Economic Zone (EEZ) from illegal fishing. The patrol involved the Australian Customs Vessel, Roebuck Bay and the Indonesian Fisheries Vessels, Hiu Macan 001 and Hiu Macan 002.

Ambassador Farmer said the coordinated patrol reflected the serious action both countries were taking to tackle illegal fishing in the region. "Illegal fishing is an international problem and the success of the coordinated patrol demonstrates what can be achieved through international cooperation," he said at the press release.

ICSF 4 June, 2009

23 Sri Lanka: 80 fish landing centres to be developed

Sri Lanka's Fisheries and Aquatic Resources Ministry has officially launched a project spending over Canadian \$4.9 million to develop 80 fish landing centres located in 15 coastal districts including the Northern and Eastern Provinces.

The project is being executed by the Fisheries and Aquatic Resources Ministry and implemented jointly by the Canadian international Development Agency (CIDA), the Food and Agricultural Organization (FAO) in association with the Ceylon Fishery Harbour Corporation (CFHC).

Fisheries and Aquatic Resources Minister Felix Perera said at the launching ceremony of the CIDA-FAO funded project on 'Restoration and Improvement of Fishing Landing Centres with Stakeholder Participation', held recently at the CFHC that the project is also committing to build capacity of the CFHC, Fisheries and Aquatic Resources Department (FARD) and to promote livelihoods among the small scale fishing community particularly for the benefit of fishermen.

He said this is the most opportune time for us to extend the rehabilitation of fish landing centers covering all 15 coastal districts as we have liberated the whole country from terrorism

ICSF 4 June, 2009.

24 World: Massive jellyfish swarms damaging world fisheries

Massive jellyfish swarms, some covering hundreds of square miles, are reported to be occurring in many parts of the world's fisheries and tourist destinations. This has caused injuries and even deaths to people, and serious damage to fisheries, fish farms, marine mines, desalination plants, ships and nuclear power plants.

Areas that are currently hard-hit by these jellyfish swarms include Hawaii, the Gulf of Mexico, the east coast of the US, the Bering Sea, the Mediterranean Sea, Australia, the Black Sea and other European seas, the Sea of Japan, the North Sea and Namibia.

The jellyfish swarms range from potentially deadly, peanut-sized jellyfish in Australia to swarms of hundreds of millions of refrigerator-sized jellyfish

in the Sea of Japan. It is suspected that the population explosion of jellyfish is due to human activities, which include pollution, climate change, introductions of non-native species, overfishing and the presence of artificial structures, such as oil and gas rigs.

Since the 1980s, jellyfish swarms have cost the world's fishing and tourism industries alone hundreds of millions, perhaps even billions, of dollars.

INFOFISH International 3/2009

25 Iceland: Urged to reconsider whaling quota

Seven countries including Britain, Germany and the United States have urged Iceland to reconsider its decision to increase its whaling quota sixfold. The other countries were Finland, France, the Netherlands and Sweden.

The increase was announced by Iceland's former government in late January as one of its last moves, but new left-wing interim government that came to power just days later said it would reconsider the increase. Ambassadors and charge d'affaires from the seven countries expressed their governments' disappointment to Icelandic Fisheries Minister Steingrimur Sigfusson over the previous government's decision to issue a quota for 150 fin and 100 minke whales and 40 minke whales per year. Iceland pulled out of an international whaling moratorium in 2006 after 16 years. Iceland and Norway are the only two countries in the world that authorise commercial whaling. Japan officially hunts whales for scientific purpose, although the whale meat is sold for consumption.

INFOFISH International 3/2009

26 Maldives: Banned reef shark fishing

The Maldives has banned reef shark fishing and plans a total ban on shark hunting in its seas to protect the species which are a key tourist attraction, from which the archipelago earns much foreign exchange.

The Ministry of Fisheries and Agriculture said in a statement the new rule completely bans fishing for any species of sharks within 12 miles from the atoll rim of all atolls of the Maldives.

The ban came into effect on 1 March 2009.

Previously, the ban was limited to only seven tourism atolls but given the recent expansion of the sector to ban has been extended to the entire Maldives.

The Maldives plans to ban all shark product exports within a year. The move responds to concerns about the survival of the shark species in Maldivian waters and hopes to reverse the decline in reef shark populations.

Sharks are hunted to feed a lucrative market for shark fins in Asia, where shark-fin soup is considered a delicacy. Tourism and fishing are the major industries in the Maldives with fishing providing the most employment and tourism earning the highest foreign exchange.

The ministry said the country earns far more from tourists who pay for shark watching dives than from shark exports.

World Fishing May 2009

27 Spain: Proposal on closure of Mediterranean Bluefin receives support

A proposal by WWF, calling for catch quotas to be reduced by nearly 50% in line with scientific advice, and for permanent fishing bans the troubled Mediterranean bluefin tuna during May and June covering the entire spawning season received wide support. Spain and Japan joined other governments and non-governmental organisations (NGOs) in supporting a temporary closure of the fishery, at an International Union for the Conservation of Nature (IUCN) meeting held in Barcelona, Spain. The two countries are major importers of bluefin tuna.

International Commission for the Conservation of Atlantic Tunas (ICCAT) scientific committee recently estimated that bluefin tuna catches in 2007 were about 61 000 mt in the east Atlantic and Mediterranean Sea, more than double the legal quota of 29 500 mt.

The committee believes that unless fishing mortality rates are substantially reduced in the near future, the current management scheme will most probably lead to further reduction in spawning stock biomass with high risk of fisheries and stock collapse. Scientific advice recommended a maximum quota of 15 000mt. This year's management of fishery will be decided at the International Commission for the Conservation of Atlantic Tunas (ICCAT) meeting in Marrakesh, Morocco, 17-24 November, 2009.

INFOFISH International 3/2009

28 Ecuador: Action plan to help Ecuador's fish industry

The United Nation's Food and Agriculture Organisation (FAO) launched mid-March the first of three missions aimed at drafting an action plan to help Ecuador's increasingly important fishing industry to develop sustainably, industry websites have reported.

Already a large shrimp producer and exporter in recent years, Ecuador has made more use of its productive waters and has developed its off-shore commercial fishing fleet to the point where it is noted producer of tuna.

The FAO's main objectives, according to FAO consultant Max Aguero is to prevent overcapitalisation or over exploitation of resources.

Mr Aguero also recommended, according to fis.com, that local authorities keep a database of vessels, fishing equipment, cost prices and fishing units operations.

The mission will first make a general assessment of the Ecuadorian fishing sector after which work groups will be defined and strategic line of action introduced for the documents drafting, government sources reported. Quito aims to have these lines ready in six months. They also expect to have the work group formed within the same timescale.

Following the mission in Ecuador there will be similar ones to Colombia, Peru and Chile, all countries that belong to the South Pacific Permanent Commission as the FAO helps the region make its fishing industry more sustainable.

World Fishing May 2009

CALENDAR

September

2nd Pacific Tuna forum 2009

2-3 September, Port Moresby, Papua New Guinea.

Information: INFOFISH - Pacific Tuna Forum 2009, PO Box 10899, 50728 Kuala Lumpur, Malaysia

Tel: 603-20783466

Fax: 603-20786804

IV Worldwide Conference of Tuna - Vigo 2009

14-15 September, Vigo, Spain.

Information: creboredo@anfaco.es

Website: www.anfaco.es

World seafood Moscow 2009

15-18 September, Expocentre, Moscow, Russia

Information: Melanie Somers, ITE Group plc,

105 Salisbury Road, London, NW6 6RG

Email: Melanie.Somers@ite-exhibitions.com

World Fishing Exhibition, Vigo 2009

Aqua Farming International Exhibition 2009 and The First World Summit on Fisheries Sustainability. 16-19 September, Vigo, Spain. Information: isobel Roberts, World Fishing Exhibition, Mercator Media Limited, The Old Mill, Lower Quay, Fareham, Hampshire, PO16 0RA, UK.

Tel: 44-0-1329-825335

Fax: 44-0-1329-825330

Email: info@worldtradeexhibitions.com

October

IAFI World Seafood Congress

5-10 October, 2009

Agadir, Morocco

Information: The International Assn. of Fish Inspectors.

Website: www.iafi.net.

3rd Seafood Expo 2009 Dubai

Dubai and Seafood Processing Expo 2009

12-14 October, Madinat Jumeriah, Dubai, UAE.

Information: Orange Fairs & Events, PO Box 111164, Dubai, UAE

Tel: 971-4-2987730

Fax: 971-4-2987886

Email: orangex@emirates.net.ae

Website: www.dubaiseafoodexpo.com

November

China Fisheries & Seafood Expo 2009

3-5 November, Qingdao International Convention Center, China.

Information: Sea Fare Expositions Inc.

Tel: 1-206-7895741

Email: seafoodchina@seafare.com

Website: www.chinaseafoodexpo.com

East Asian Seas (EAS) Congress 2009

23-27 Manila, Philippines.

Information: EAS Congress 2009 Secretariat, PEMSEA Resource Facility, DENR Compound, Visayas Avenue, Diliman, QC Philippines.

Tel: 632-9292992, Fax: 632-9269712

Email: congress@pemsea.org

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